FACILITY STATUS CHANGE FORM
(for DOE/RL-2010-34 Facilities)

Date Submitted:	Area:	Control #:
Jun 19, 2013	100-B	D4-100B-002
Originator:	**Facility ID:**	
David Warren	105-B Reactor Washpad Annex	
Phone:	**Action Memorandum:**	
539-6040	General Hanford Site Decommissioning Activities	

This form documents agreement among the parties listed below on the status of the facility D&D operations and the disposition of underlying soil in accordance with the applicable regulatory decision documents.

Section 1: Facility Status

☒ All removal actions require by action memo complete.

☐ Removal actions required by actions memo partially complete, remaining operations deferred.

Description of Completed Activities and Current Conditions:

Decontamination and Decommissioning: Due to the failing structural condition of the Washpad Annex roof, only hazardous materials accessible from the exterior entrance doorway were removed prior to demolition. In consultation with EPA, regulated Asbestos Containing Materials (RACM) in the form of Thermal Systems Insulation (TSI), were left in place during demolition based on the premise that the demolition would not affect/disturb the asbestos and the materials could be subsequently abated/removed following demolition/removal of the structure (See Attachment 4). Hazardous material removal and waste disposition was performed in accordance with the *Removal Action Work Plan for River Corridor General Decommissioning Activities*, DOE/RL-2010-034.

Demolition: The 105-B Washpad Annex was demolished to slab in the 100-B area in April of 2013, and the waste was loaded out and disposed of at the ERDF. Based on past uses of this facility radiological contamination was expected to be encountered during demolition. Due to the safety concerns presented by the failing roof structure of the Washpad Annex, only limited radiological scoping surveys (See Attachment 3) were available from the doorway and those surveys were not adequate to characterize the concrete slab. In consultation with the Lead Regulatory Agency (EPA) and DOE, a Potential to Emit (PTE) was not prepared and health and safety based perimeter air sampling for radiological contamination was utilized in lieu of Near Field Environmental Air samplers (See Attachment 3). Following demolition, the remaining slab of the structure was surveyed for radiological contamination and areas of fixed contamination were posted/identified, survey results are included in Attachment 5. The Washpad Annex area was not surveyed by GPS as no excavation was required for removal and the concrete slab remains as a delineator for where the facility was located.

Description of Deferral (as applicable):

Not Applicable

Section 2: Underlying Soil Status

☐ No waste site(s) present. No additional actions anticipated.

☒ Documented waste site(s) present. Cleanup and closeout to be addressed under Record of Decision.

☐ Potential waste site discovered during removal action. Waste site identification number <to be> assigned.

Cleanup and closeout to be addressed under Record of Decision.

Description of Current/As-Left Conditions:

The 105-B Washpad Annex was demolished to slab in the 100-B area and the waste generated was loaded out and disposed of at the ERDF. The area was not surveyed by GPS as no excavation was required for removal as the slab remains as a delineator for where the facility was located. The previous building site is currently posted with several fixed contamination areas on the concrete slab (See Attachment 5).

Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):

118-B-8:1, 105-B Reactor Building. This site consists of the footprint of the 105-B Reactor facility, minus the Washpad

FACILITY STATUS CHANGE FORM
(for DOE/RL-2010-34 Facilities)

Annex, due to the potential for historical releases that may have resulted in contamination.

118-B-8:2, 105-B French Drains. Network of French drains that supported 105-B Reactor operations.

118-B-8:3, 105-B Miscellaneous Pipeline Segments. Various pipelines that supported 105-B Reactor operations.

None of these WIDS sites were impacted by the demolition of the Wash Pad Annex as the demolition was only of the Washpad Annex to the concrete slab, and did not require excavation or disturbance of soils.

Section 3: List of Attachments

1. Facility Information
2. Map and Photographs of the 105-B Washpad Annex Facility
3. CCN 170055, Regulator Approval of Health and Safety based monitoring for the 105-B Washpad Annex demolition
4. CCN 171463, EPA Approval of 105-B Washpad Annex Demolition approach
5. 105-B Washpad Annex Post Demolition Radiological Surveys

Rudy Guercia _____ 6/19/13

DOE-RL (Lead Agency) Date

DISTRIBUTION:

DOE: Rudy Guercia, A3-04
Document Control, H0-30
Administrative Record, H6-08 (100-BC-1 OU)
SIS Coordinator: Benjamin Cowin, H4-22
D4 EPL: David Warren, X9-08
Sample Design/Cleanup Verification:Theresa Howell, H4-23
FR Engineering: Rich Carlson, N3-30
FR EPL: Dan Saueressig, N3-30

Attachment 1: Facility Information

Introduction

This document provides information regarding the history, characterization, and final status at the completion of deactivation, decontamination, decommissioning, and demolition (D4) activities of the 105-B Washpad Annex located in the 100-B Area.

Facility History

The 105-B Wash Pad Annex was attached to East end of the 105-B Reactor Fuel Storage Basin of the 105-B Reactor. The facility was 25-ft by 15-ft wood framed structure constructed out of concrete masonry units (CMU) sitting atop a concrete slab, with a built up roof and gravel-roofing surface. The 105-B Wash Pad Annex was upgraded in 1950 to decontaminate used dummies and spacers with oxalic acid. In 1961, the Wash Pad Annex was modified to utilize cold nitric acid in the decontamination process.

Due to potential damage to the adjacent 105-B Fuel Storage Basins only the above-grade portion of Wash Pad Annex was demolished. The concrete slab was left in place. The Fuel Storage Basin roof was repaired and flashing installed where the Wash Pad Annex attached to the Fuel Storage Basin Roof.

See Attachment 2 for a map and photographs of the 105-B Washpad Annex.

Facility Characterization

The 105-B reactor, as well as the outer entrance door to the Washpad annex, were posted for radiological conditions. Specifically, the outer entrance door to the Washpad Annex was posted as Contamination Area (CA). Based on historical research of past uses, radiological contamination was expected due to the concrete slab being covered and posted. A majority of the facility was not surveyed due to the structurally failed condition of the facility roof. Scoping surveys are included in Attachment 3. The 105-B Washpad Annex was not listed on the Hanford Site Beryllium Controlled Facilities List. A Beryllium Facility Assessment Form (BFA) characterized the building as a "beryllium clean facility".

Table 1 summarizes the radiological control surveying and asbestos sampling that was performed at the 105-B Washpad Annex. Table 2 summarizes the contaminants of concern for facility demolition and the Management Practices implemented to minimize the spread of those contaminants.

Table 1: Summary of Radiological Surveying and Asbestos Sampling Performed at the 105-B Washpad Annex

Type	Quantity	Method Detection Limits	Results
Radiological Scoping Surveys	1 Survey	Beta-gamma: 1,000 removable/ 5,000 fixed [a] Alpha: 20 removable/ 500 fixed [a]	Radiological scoping survey(s) were performed as far into the facility as accessible from the entryway. A majority of the facility was not surveyed due to the structurally failed condition of the facility roof. Radiological contamination was expected due to the concrete slab being covered and posted. Scoping surveys are included in Attachment 3.
Asbestos – Thermal System Insulation and Miscellaneous Material	15 Samples	1% weight	All potentially-asbestos-containing materials sampled were below the Method Detection Limit. Thermal Systems Insulation (TSI) located inside the facility that was inaccessible for sampling due to the failing condition of the Washpad Annex roof, was presumed to contain Asbestos.
[a] – dpm/100 cm^2			

Table 2: Contaminants of Concern for Facility Demolition

Contaminant of Concern	Management Practice
Radiological Contamination	Demolition was performed under radiological controls, including the use of perimeter health and safety based air sampling for radionuclides as outlined in Attachment 3. A post demolition radiological survey was performed to downpost the area and identify areas of the remaining concrete slab that exhibit fixed radiological contamination. See Attachment 5 for survey results.

Attachment 2: Map and Photographs of the 105-B Washpad Annex

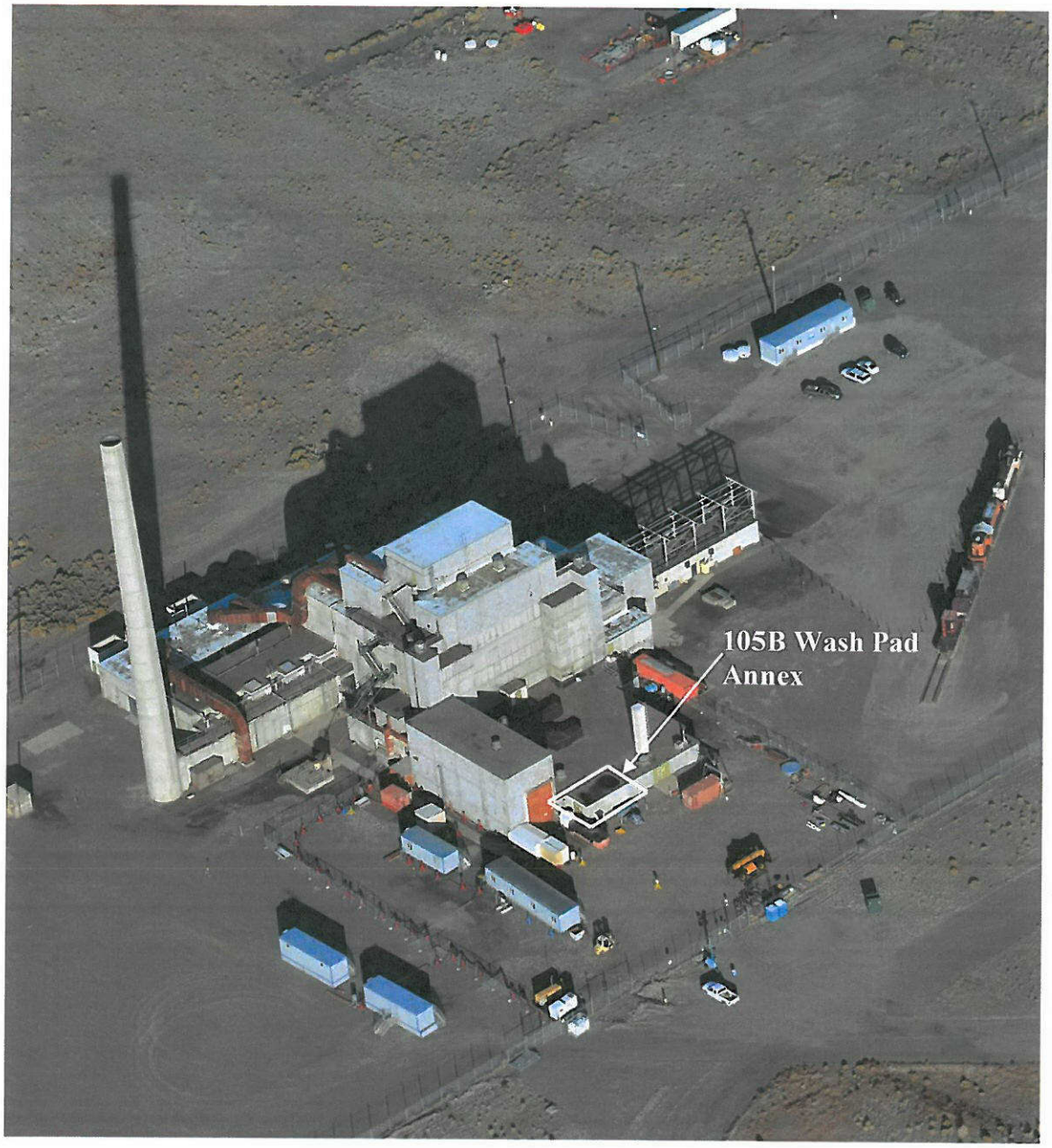

Photo of the 105-B Washpad Annex Before Demolition

Photo of the 105-B Washpad Annex Before Demolition

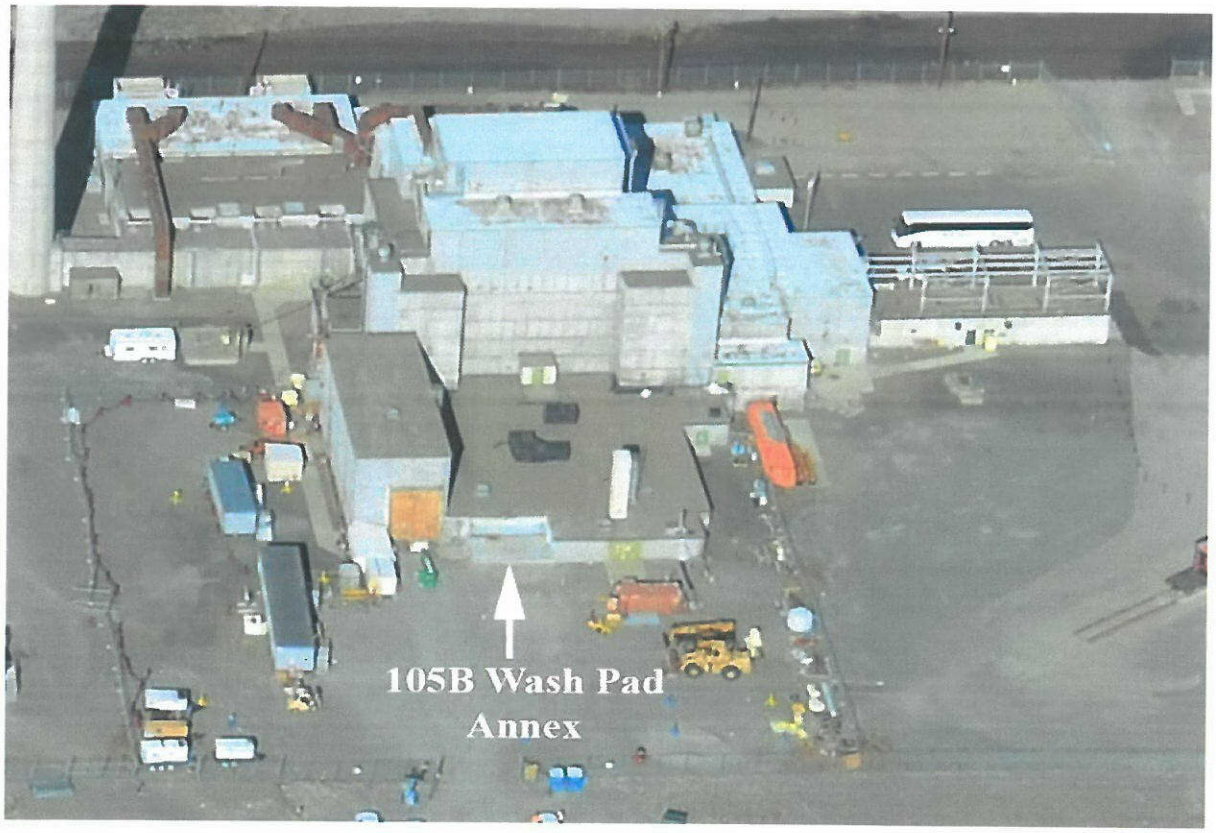

Photo of 105-B Washpad Annex following demolition

Photo of 105-B Washpad Annex following demolition

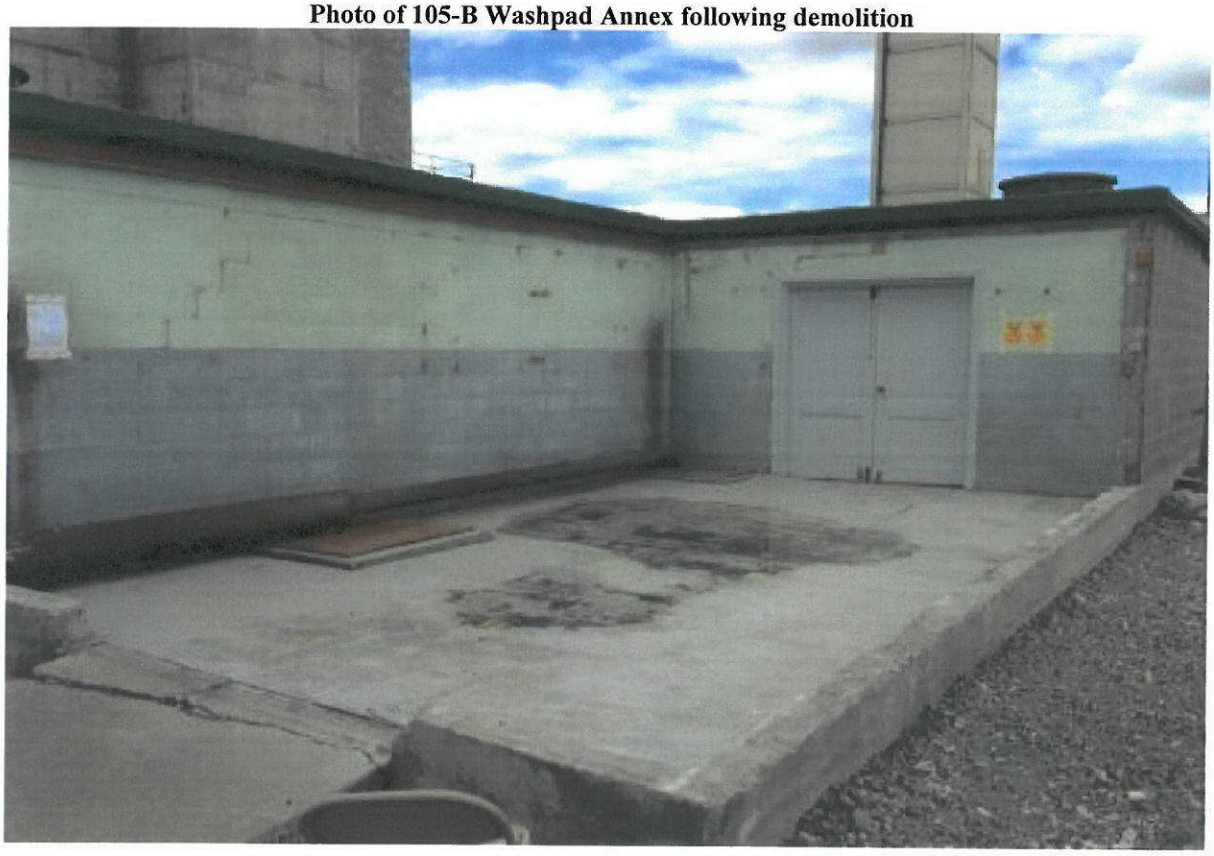

Photo of 105-B Washpad Annex following demolition

Attachment 3: CCN 170055, Regulator Approval of Health and Safety based monitoring for the 105-B Washpad Annex demolition

170055

^WCH Document Control

From: Warren, David J
Sent: Wednesday, February 27, 2013 7:57 AM
To: ^WCH Document Control
Subject: Regulatory agreement for CHRON

Attachments: RE: 105-B Washpad Annex Demo Radiological Air Emissions; 105-B Washpad Annex Demo Radiological Air Emissions; 105-B Washpad Annex Demo Radiological Air Emissions

Please print and CHRON the attached email chains (and attachments) as they represent a regulatory agreement. The e-mails are listed in the order that they should appear in the agreement. Title should be: Regulator approval of Health and Safety based monitoring for the 105-B Washpad Annex demolition. Please advise me of the CHRON once complete. Thanks.

David Warren
100-Area D4 Environmental Project Lead
WCH
539-6040

RE: 105-B ıpad Annex Dem | 105-B Washpad nnex Demo Radio | 105-B Washpad nex Demo Radio

^WCH Document Control

From: Buelow, Laura
Sent: Wednesday, February 20, 2013 1:18 PM
To: Guercia, Rudolph F; Warren, David J
Subject: RE: 105-B Washpad Annex Demo Radiological Air Emissions

I agree with the proposed approach.

Laura

From: Guercia, Rudolph F (Rudy) [mailto:rudolph.guercia@rl.doe.gov]
Sent: Wednesday, February 20, 2013 12:46 PM
To: Warren, David J; Buelow, Laura
Subject: RE: 105-B Washpad Annex Demo Radiological Air Emissions

I have no objections. Laura?

R. F. Guercia, Field Engineering
U.S. Dept. of Energy, Richland Operations Office
PH: (509) 376-5494
Fax: (509) 373-0726

From: Warren, David J [mailto:djwarren@wch-rcc.com]
Sent: Tuesday, February 19, 2013 3:41 PM
To: Buelow.Laura@epamail.epa.gov; Guercia, Rudolph F (Rudy)
Subject: 105-B Washpad Annex Demo Radiological Air Emissions

Rudy/Laura,

Please see the attached aerial photo of the back side of B-Reactor, figure depicting the Wind Rose at 100-B from the inactive 100-B/C Air Monitoring Plan, and photo of the Washpad Annex.

If you'll notice in the aerial photo, the Washpad annex is defined by the slightly lighter colored roofing material. There is only one direction from which to demolish the washpad annex, that being from the East side. I've outlined the approximate area I estimate it will take to demolish the washpad annex with a red box, only an estimate I expect it will probably take less. I've spoken with our Radiological Controls Engineer about Health and Safety based radiological air emissions monitoring during the demolition of Washpad Annex. Standard protocol for Health and Safety monitoring/sampling is for one sampler to be placed inside the boundary and one downwind sampler adjacent the boundary. If you'll notice from the inactive 100-B/C inactive Air Monitoring Plan (AMP) figure, prevailing wind at the 100-B/C area is predominantly from the west, or from the direction at which the Washpad Annex is shielded by B-Reactor. For the purposes of demolition of the Washpad Annex, WCH proposes the use of two health and safety based radiological air emissions samplers, one inside the CA boundary (somewhere in the red box), and another located to the East (downwind) adjacent the boundary. Do you concur with this approach? Please contact me if you have any questions. Thanks for your time.

Dave Warren

100-Area D4 EPL
539-6040

From: Buelow.Laura@epamail.epa.gov [mailto:Buelow.Laura@epamail.epa.gov]
Sent: Tuesday, February 05, 2013 2:46 PM
To: Warren, David J
Cc: Guercia, Rudolph F
Subject: Re: 105-B Washpad Annex Demo Radiological Air Emissions

I would prefer some sort of perimeter monitoring. Also be aware that some time this spring B reactor tours will start up again and this should be done at a time that there are no visitors.

Laura Buelow, Ph.D.
Project Manager
U.S. Environmental Protection Agency
Hanford Project Office
309 Bradley Blvd, Suite 115
Richland, WA 99352
Phone: 509 376-5466
Fax: 509 376-2396
E-mail: buelow.laura@epa.gov

☐ "Warren, David J" ---02/04/2013 12:40:27 PM---Rudy/Laura,

From: "Warren, David J" <djwarren@wch-rcc.com>
To: "Guercia, Rudolph F" <rudolph.guercia@rl.doe.gov>, Laura Buelow/R10/USEPA/US@EPA
Date: 02/04/2013 12:40 PM
Subject: 105-B Washpad Annex Demo Radiological Air Emissions

Rudy/Laura,

WCH is making preparations to demolish the above grade of the Washpad Annex of the 105-B Reactor, scope that is managed under *the Removal Action Work Plan for River Corridor General Decommissioning Activities*, DOE/RL-2010-34, Rev. 1 (RAWP). If you recall, Section 9.0 of the *Action Memorandum for General Hanford Site Decommissioning Activities*, DOE/RL-2010-22, Rev. 0, establishes the U.S. Department of Energy (DOE) as lead agency for the proposed removal action. I'm consulting Laura because the Lead Agency for the OU generally handles any radiological air emissions issues in consult with the Department of Health.

Facilities managed under this removal action are generally believed to not be radiologically contaminated. Consistent with the methodology established in Section 4.3.2 of the RAWP (DOE/RL-2010-34, Rev. 1), the potential for Radiological air emissions is addressed by providing a No Potential to Emit (PTE) radionuclides for demolition statement to the Lead Agency (DOE) that includes a facility history and radiological surveys that establish current conditions based on completed scoping surveys, which eliminates the requirement for an emissions estimate, Air Monitoring Plan (AMP), and radiological air emissions monitoring through a Near Field Monitoring (NFM) network. The 105-B Washpad Annex is unique with respect to the fact that there is some potential for contamination within the facility. The problem with acquiring detailed radiological characterization surveys for the 105-B Washpad Annex is that the failing condition of a partially collapsed roof has eliminated the possibility of safely entering the structure. We have performed a survey from the doorway (attached), which included

dose rates and smears utilizing long handled tools, but we were not able to survey the concrete pad as it is covered with plastic sheeting. The survey did not identify any contamination. Also, it should be noted that the concrete pad of the Washpad annex will not be demolished.

<<Wash Pad Characterization>>
Given the fact that WCH will likely not be able to acquire further surveys of the Washpad Annex, and no current AMP or NFM monitoring network exists at 100-B Area, WCH is proposing:

1. Reliance on the attached survey data as no PTE based on the fact that the concrete pad of the Washpad Annex will not be demolished.

Or
2. The use of Health and Safety based perimeter radiological air monitoring during the short term duration (most likely less than 7 working days) required for the demolition of the Washpad Annex.

Please let me know what your thoughts are on the matter and feel free to contact me if you have any questions.
Thanks,
David Warren
100-Area D4 Environmental Project Lead
WCH
539-6040

[attachment "Wash Pad Characterization.pdf" deleted by Laura Buelow/R10/USEPA/US]

^WCH Document Control

From: Warren, David J
Sent: Tuesday, February 19, 2013 3:41 PM
To: 'Buelow.Laura@epamail.epa.gov'; Guercia, Rudolph F
Subject: 105-B Washpad Annex Demo Radiological Air Emissions
Attachments: B- Reactor Aerial.doc; AMP Figure.doc; Annex Photo.JPG

Rudy/Laura,

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Dave Warren
100-Area D4 EPL
539-6040

From: Buelow.Laura@epamail.epa.gov [mailto:Buelow.Laura@epamail.epa.gov]
Sent: Tuesday, February 05, 2013 2:46 PM
To: Warren, David J
Cc: Guercia, Rudolph F
Subject: Re: 105-B Washpad Annex Demo Radiological Air Emissions

I would prefer some sort of perimeter monitoring. Also be aware that some time this spring B reactor tours will start up again and this should be done at a time that there are no visitors.

Laura Buelow, Ph.D.
Project Manager
U.S. Environmental Protection Agency
Hanford Project Office
309 Bradley Blvd, Suite 115
Richland, WA 99352
Phone: 509 376-5466
Fax: 509 376-2396
E-mail: buelow.laura@epa.gov

^WCH Document Control

From: Warren, David J
Sent: Monday, February 04, 2013 12:40 PM
To: Guercia, Rudolph F; Buelow, Laura
Subject: 105-B Washpad Annex Demo Radiological Air Emissions

Attachments: Wash Pad Characterization

Rudy/Laura,

WCH is making preparations to demolish the above grade of the Washpad Annex of the 105-B Reactor, scope that is managed under *the Removal Action Work Plan for River Corridor General Decommissioning Activities*, DOE/RL-2010-34, Rev. 1 (RAWP). If you recall, Section 9.0 of the *Action Memorandum for General Hanford Site Decommissioning Activities*, DOE/RL-2010-22, Rev. 0, establishes the U.S. Department of Energy (DOE) as lead agency for the proposed removal action. I'm consulting Laura because the Lead Agency for the OU generally handles any radiological air emissions issues in consult with the Department of Health.

Facilities managed under this removal action are generally believed to not be radiologically contaminated. Consistent with the methodology established in Section 4.3.2 of the RAWP (DOE/RL-2010-34, Rev. 1), the potential for Radiological air emissions is addressed by providing a No Potential to Emit (PTE) radionuclides for demolition statement to the Lead Agency (DOE) that includes a facility history and radiological surveys that establish current conditions based on completed scoping surveys, which eliminates the requirement for an emissions estimate, Air Monitoring Plan (AMP), and radiological air emissions monitoring through a Near Field Monitoring (NFM) network. The 105-B Washpad Annex is unique with respect to the fact that there is some potential for contamination within the facility. The problem with acquiring detailed radiological characterization surveys for the 105-B Washpad Annex is that the failing condition of a partially collapsed roof has eliminated the possibility of safely entering the structure. We have performed a survey from the doorway (attached), which included dose rates and smears utilizing long handled tools, but we were not able to survey the concrete pad as it is covered with plastic sheeting. The survey did not identify any contamination. Also, it should be noted that the concrete pad of the Washpad annex will not be demolished.

Wash Pad
aracterization.pdf

Given the fact that WCH will likely not be able to acquire further surveys of the Washpad Annex, and no current AMP or NFM monitoring network exists at 100-B Area, WCH is proposing:

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Or

2. The use of Health and Safety based perimeter radiological air monitoring during the short term duration (most likely less than 7 working days) required for the demolition of the Washpad Annex.

Please let me know what your thoughts are on the matter and feel free to contact me if you have any questions.

Thanks,

David Warren
100-Area D4 Environmental Project Lead
WCH
539-6040

RADIOLOGICAL SURVEY RECORD

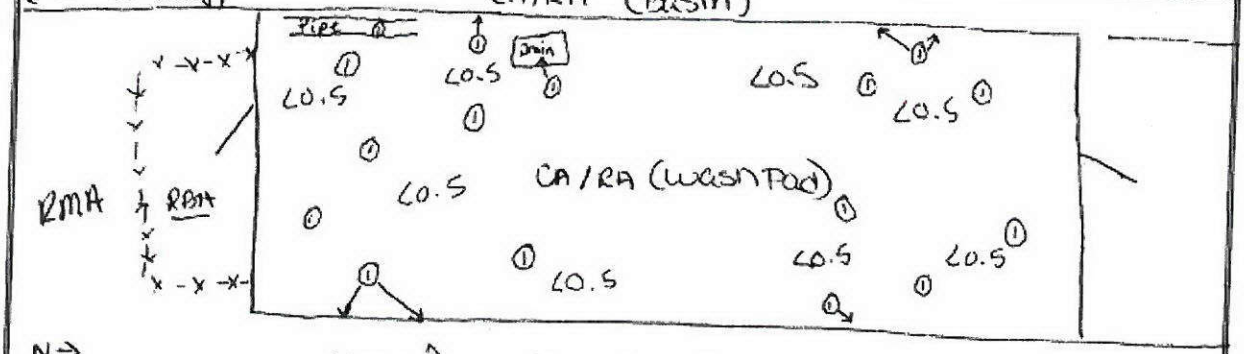
Page 1 of 2

Type of Survey			Survey #
☐ Routine	☒ Work Progress		RSR – IFSM-12-1073
RWP # / Rev. #	Date	Time	Location
IFSM-12-001/00	12/4/12	1430	100B/105B/Wash Pad

Description: Characterization of Wash Pad

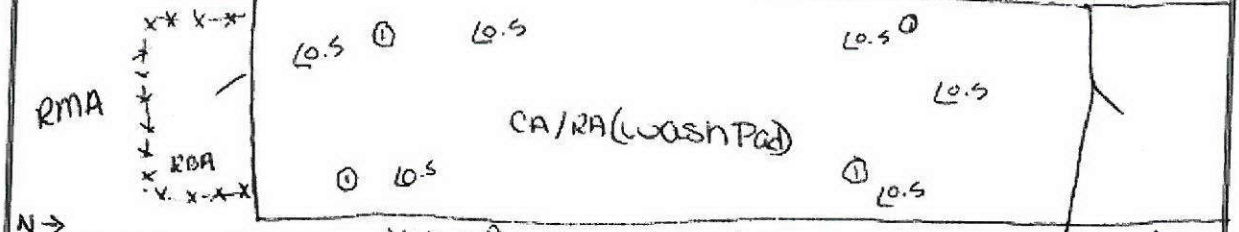
References: (e.g., SRTA, ASER, LASER, RSP, Work Package)
TA-08-SR-01/1

(Transfer Bay) CA/RA (Basin)



View from the top (showing survey of floor & walls)

(Transfer Bay) CA/RA (Basin)



View from bottom (showing survey of ceiling)

CA Contamination Area | HCA High Contamination Area | RBA Radiological Buffer Area | ARA Airborne Radioactivity Area | (AS) Air Sample Location | RMA Radioactive Materials Area | RA Radiation Area | HRA High Radiation Area | VHRA Very High Radiation Area

O Technical Smear | # Direct | M Large Area Wipe | T Transferable | General Area Dose Rates =Uncorrected Meter Reading (mR/hr) | All radiation readings are γ dose rates in units of mR/hr unless otherwise indicated | Contact 30 cm | N Neutrons (mRem/hr) | Δ Micro Rem (μR/hr) | SCA Soil Contamination Area | Radiological Boundary

Instruments

Model	ID #	Cal Due Date	Model	ID #	Cal Due Date
Johnson Extender	XEWB2-0054	2/26/13	N/A	N/A	N/A
2360	SCLL8-0073	12/16/12	43-93	DTLLP-0174	12/16/12
N/A	N/A	N/A	N/A	N/A	N/A

RCT Name/Signature/Date:
Hunter Woods / [signature] / 12-4-12

RCT Supervisor Name/Signature/Date:

WCH-TM-R006a (06/30/2009)

RCT signature indicates portable instruments checked IAW RC-300-2.1

RADIOLOGICAL SURVEY RECORD

Page: 2 of 2

Survey # RSR - IFSM-12-1073

Contamination Measurement Information[1]

Circled values indicate Removable β contamination in mrad/hr β

No.	Description of Item or Location	Removable (dpm/100 cm²)				Total (dpm/100 cm²)			
		α	α C-F	β-γ	β-γ C-F	α	α C-F	β-γ	β-γ C-F
1	All Surveys	<20	7	<1K	10	AU 12/4/12 <500 N/A	N/A	N/A	N/A
N/A									N/A
				N/A					
N/A									N/A

[1] Unless stated otherwise in the "References" section, exempted β-γ (i.e., C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, Eu-155) contamination levels are ≤ 10 times the β-γ contamination levels shown above.

Corrected Dose Rate Calculations

Show all work. CF = 1 unless noted.

Location	Contact Readings		30 cm Readings	
	β (mrad/hr) (WO-WC) X CF = DR	γ (mR/hr) WC X CF = DR	β (mrad/hr) (WO-WC) X CF = DR	γ (mR/hr) WC X CF = DR
General Area at Wash Pad	N/A	N/A	<6.5 AU 12/4/12 N/A	<0.5
N/A				N/A
		N/A		
N/A				N/A

WCH-TM-R006a (06/30/2009)

Attachment 4: CCN 171463, EPA Approval of 105-B Washpad Annex demolition approach

171463

^WCH Document Control

From: Warren, David J

Sent: Tuesday, June 18, 2013 10:40 AM

To: ^WCH Document Control

Subject: FW: 105-B Washpad Annex Demo under River Corridor General Facilities Decommissioning CERCLA work plan

Please CHRON the attached email string as it represents a regulatory agreement. Title should be: EPA approval of 105-B Washpad Annex demolition approach. Please advise me of the CHRON number when complete. If at all possible I would like this done ASAP as I need this agreement for a regulatory closure document. Thanks!

Dave Warren
100-Area EPL
539-6040

From: Pavitt, John [mailto:Pavitt.John@epa.gov]
Sent: Thursday, April 11, 2013 9:38 AM
To: Guzzetti, Christopher
Cc: Warren, David J
Subject: RE: 105-B Washpad Annex Demo under River Corridor General Facilities Decommissioning CERCLA work plan

Chris, the approach proposed by David Warren with WCH is consistent with the asbestos NESHAP.

According to Mr. Warren, the building was evaluated and determined to be structurally unsound, which is readily apparent from the photos he sent you. WCH wishes to begin work this weekend.

The proposal is to do a partial demolition of the 105-B Washpad annex to give access to presumed Thermal System Insulation (TSI) on pipes. They do not expect to damage the TSI during the partial demo. Once the partial demo is complete, the pipes will be abated in accordance with "standard industry abatement practices" according to Mr. Warren. I note here that my expectation is that the standard industry abatement practices to be followed will include wet methods, no visible emissions and containment. Containment can be in the form of glovebags, since the surrounding room(s) of the building will of course be gone at the time. Let me add that the resulting waste will be regulated asbestos waste and must be placed in leak tight containers and identified as asbestos in any accompanying waste shipment record (or Tracking Form as used at Hanford).

Please let me know if you have any questions about this e-mail.

Thank you,

John Pavitt
EPA R10, Alaska Operations Office
(907) 271-3688

From: Guzzetti, Christopher
Sent: Thursday, April 11, 2013 7:18 AM
To: Pavitt, John
Subject: FW: 105-B Washpad Annex Demo under River Corridor General Facilities Decommissioning CERCLA work plan

John,

Need your advice again. I don't see an issue with what they have proposed. Hopefully you can do a quick review and let me know, I think they want to do the work this weekend since the B Reactor is the one that gets tours and they have a limited window.

Thanks,

Christopher J. Guzzetti
Project Manager
Hanford Project Office
U.S. Environmental Protection Agency
309 Bradley Boulevard, Suite 115
Richland, WA 99352

Phone: (509) 376-9529
Fax: (509) 376-2396
Email: guzzetti.christopher@epa.gov

From: Warren, David J [mailto:djwarren@wch-rcc.com]
Sent: Monday, April 08, 2013 11:01 AM
To: Guzzetti, Christopher
Cc: Buelow, Laura
Subject: 105-B Washpad Annex Demo under River Corridor General Facilities Decommissioning CERCLA work plan

Chris,

Greetings (again). I'm requesting some guidance regarding demolition of a facility (105-B Washpad Annex) that falls under the scope of the Removal Action Work Plan for River Corridor General Decommissioning Activities (DOE/RL-2010-34 Rev. 1) , with asbestos left in place to be abated following demolition. Laura Buelow can probably provide you with with a little background knowledge of the facility if you're interested.

The 105-B Washpad annex is an addition off the backside of the 105-B Reactor Building. WCH has been given direction by DOE to demolish the Washpad Annex to grade. Here is where things get interesting. The facility, due to its' poor structural condition (i.e. partially collapsed roof, see second photo above) has been deemed unsafe to enter by our structural engineer and Safety professionals. The facility has been pretty well characterized and two section(s) of piping (upper left of second photo) contain, or are presumed to contain, asbestos containing Thermal Systems Insulation (TSI), which is considered to be Regulated Asbestos Containing Material (RACM) under the Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP). The Asbestos NESHAP clearly allows for ACM (even RACM) to be left in place for demolition in situations where the facility is in danger of imminent collapse. In fact, Mr. Pavitt in his visit to the Hanford Site, toured another facility on the Hanford Site (183-D) that exhibited this same issue.

Regarding the 105-B Washpad Annex, WCH is making preparations to demolish the facility by cutting the roof line in such a way that it will act as an overhang and protect the TSI material from damage during demolition of the Washpad Annex with an excavator. Following completion of demolition activities the TSI material will be abated using standard industry abatement practices. We will not be damaging the ACM during or preclude access for abatement following demolition. WCH feels that demolition of the facility in this manner is within the regulatory boundaries established by the Asbestos NESHAP based on our interpretation of the excerpt of 40 CFR Section 61.145 pasted below (specific interest on the language in red font):

(c) *Procedures for asbestos emission control.* Each owner or operator of a demolition or renovation activity to whom this paragraph applies, according to paragraph (a) of this section, shall comply with the following procedures:

(1) Remove all RACM from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. RACM need not be removed before demolition if:

(i) It is Category I nonfriable ACM that is not in poor condition and is not friable.

(ii) It is on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition; or

(iii) It was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed. If not removed for safety reasons, the exposed RACM and any asbestos-contaminated debris must be treated as asbestos-containing waste material and adequately wet at all times until disposed of.

(iv) They are Category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition.

I apologize for the length of this e-mail. Again, just looking for guidance or agreement from EPA that what WCH proposes is acceptable. Feel free to call or e-mail with any questions.

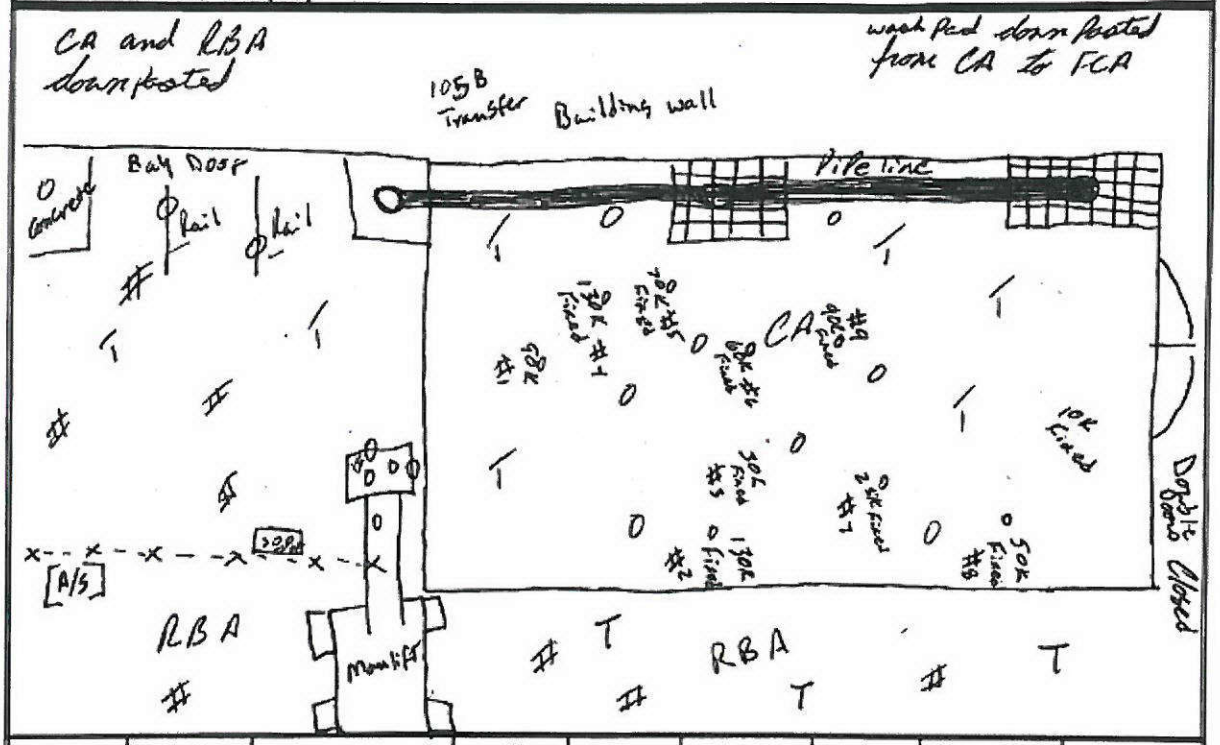
Dave Warren
100-Area EPL
WCH
539-6040

Attachment 5: 105-B Washpad Annex Post Demolition Radiological Surveys

RADIOLOGICAL SURVEY RECORD

Page 1 of 2

Type of Survey			Survey #
☒ Routine D-1 W1 W4 W11 WC ☒ Work Progress			RSR – IFSM-13-0712
RWP # / Rev. #	Date	Time	Location
IFSM-12-001/02	4-15-13	1030	Wash Pad 105B
Description: wash pad area down post			
References: (e.g., SRTA, ASER, LASER, RSP, Work Package) TA-08-SK-01/01			



CA Contamination Area	HCA High Contamination Area	RBA Radiological Buffer Area	ARA Airborne Radioactivity Area	[AS] Air Sample Location	RMA Radioactive Materials Area	RA Radiation Area	HRA High Radiation Area	VHRA Very High Radiation Area

○ Technical Smear	# Direct	M Large Area Wipe	T Transferable	General Area Dose Rates = Uncorrected Meter Reading (mR/hr)	All radiation readings are γ dose rates in units of mR/hr unless otherwise indicated	Contact / 30 cm	N Neutrons (mRem/hr)	Δ Micro Rem (μR/hr)	SCA Soil Contamination Area	Radiological Boundary x—x—x

Instruments

Model	ID #	Cal Due Date	Model	ID #	Cal Due Date
2224-3	SCLLB-0042	9-25-13	2360	SCLLE-0015	2-27-14
43-93	DTLLP-0129	9-25-13	43-93	DTLLP-0161	2-27-14
—	N/A	—	—	N/A	—

RCT Name/Signature/Date: C Schalla [signature] 4-15-13

RCT Supervisor Name/Signature/Date: RON CUEVAS [signature] 4-16-13

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RCT signature indicates portable instruments checked IAW RC-300-2.1

RADIOLOGICAL SURVEY RECORD	Page: 2 of 2 Survey # RSR - IFSM-13-0712

Contamination Measurement Information[1]

Circled values indicate Removable β contamination in mrad/hr β

No.	Description of Item or Location	Removable (dpm/100 cm²)				Total (dpm/100 cm²)			
		α	α C-F	β-γ	β-γ C-F	α	α C-F	β-γ	β-γ C-F
N/A	all smears	<20	7	<1000	10	N/A			
1	# direct on slab	<20	7	1000	10	<500	7	90K	10
2	direct on slab	<20	7	1000	10	<500	7	130K	10
3	direct on slab	<20	7	1000	10	<500	7	30K	10
4	direct on slab	<20	7	1000	10	<500	7	130K	10
5	direct on slab	<20	7	1000	10	<500	7	70K	10
6	direct on slab	<20	7	1000	10	<500	7	60K	10
7	direct on slab	<20	7	1000	10	<500	7	25K	10
8	direct on slab	<20	7	1000	10	<500	7	50K	10
9	direct on slab	<20	7	1000	10	<500	7	90K	10
10	direct on slab	<20	7	1000	10	<500	7	10K	10
					N/A				

[1] Unless stated otherwise in the "References" section, exempted β-γ (i.e., C-14, Fe-55, Ni-59, Ni-63, Se-79, Tc-99, Pd-107, Eu-155) contamination levels are ≤ 10 times the β-γ contamination levels shown above.

Corrected Dose Rate Calculations

Show all work. CF = 1 unless noted.

Location	Contact Readings		30 cm Readings	
	β (mrad/hr) (WO-WC) X CF = DR	γ (mR/hr) WC X CF = DR	β (mrad/hr) (WO-WC) X CF = DR	γ (mR/hr) WC X CF = DR
		N/A		

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